CLAIMS

We claim:

1. A method for protecting surfaces, comprising the steps of:

inspecting the application surface;

applying masking materials to protect the application surface boundary;

protecting any functional openings in the application surface using convex polyvinyl molding materials over the functional openings;

preheating a protective material to a temperature of 20 degrees Fahrenheit to 120 degrees Fahrenheit;

applying a wet releasing agent to the application surface once an ambient temperature range between 20 degrees Fahrenheit and 120 degrees Fahrenheit is met;

using an application means to apply the heated protective material to coat the application surface and wet releasing agent;

inspecting the protective material coating for consistency;

adjusting the protective material coating by reapplying the protective material as necessary;

allowing the protective material coating to cure;

performing work around the coated application surface;

completing the work around the coated application surface;

locating any functional openings in the coated application surface by the convex protrusion in the coated application surface;

opening the functional opening by cutting through or pulling off the convex protrusion in the application coating and convex polyvinyl mold thereunder;

performing any necessary work to the functional opening;

completing any necessary work to the functional opening;

removing any masking materials used to protect the application surface;

removing the intact remaining protective coating from the coated application surface; and

reusing the intact protective coating for surfaces with an identical surface area and geometry as the previous application surface without applying any releasing agent or new protective coating materials.

2. The method of claim 1, wherein the protective coating material comprises:

between 52% to 75% by weight of a pre-polymer mixture; and

between 25% to 52% by weight of a curative mixture.

3. The method of claim 2, wherein the application means comprises an adjustable dual pump sprayer further comprising a disposable spray nozzle tip wherein the pre-polymer mixture and the curative mixture are mixed at the disposable spray nozzle tip and atomized by compression to provide a four to five inch spray pattern.

4. The method of claim 3, further comprising applying the heated protective material to the application surface to a thickness of from 1/32 to 1/16 of an inch on vertical

surfaces and to a thickness of 1/16 to 3/32 of an inch on horizontal surfaces.

5. The method of claim 3, further comprising applying means to provide a friction surface to the heated protective material before the protective material cures.

6. The method of claim 5, wherein the means to provide a friction surface to the heated protective material before the protective material cures further comprises applying sand to the heated protective material after it has been applied to the protected surface.

7. The method of claim 3, wherein the application means is portably housed in a manually carried assembly.

8. The method of claim 3, wherein the application means is portably housed in a manually positioned assembly.

9. The method of claim 3, wherein the application means is portably housed in an automotive vehicle.

10. The method of claim 3, wherein the pre-polymer mixture comprises:

from 35% to 75% polymeric diphenylmethane diisocyanate;

from 7% to 35% 4,4-diphenylmethane diisocyanate; and

from 1% to 8% trischloropropyl phosphate.

11. The method of claim 3, wherein the curative mixture comprises:

from 2 % to 76% hydroxl terminated poly (oxyalkylene) polyethers;

from 1 % to 17.5% butanediol;

from 1 % to 9% diethyltoluenediamine; and

from 0.5% to 1% of organotin catalyst.

12. The method of claim 3, wherein the pre-polymer mixture comprises:

from 0.5% to 1% of toluene diisocyanate;

from 20% to 67% isocyanate terminated prepolymer;

from 4% to 10% diphenylmethane diisocyanate;

from 2% to 4.5% higher oligomers of MDI;

from 1% to 13% parafinic and naphthenic petroleum blend;

from 16% to 58% chlorinated hydrocarbon; and

from 2% to 3% hydrophobic silica.

13. The method of claim 3, wherein the curative mixture comprises:

from 0.2% to 0.6% of an organomercury catalyst;

from 10% to 17% petroleum hydrocarbon;

from 38% to 45% polyether polyols;

from 26% to 37% calcined kaolin; and

from 8% to 12% hydrophobic silica.

14. The method of claim 3, wherein the releasing agent comprises:

from 0.5% to 2% Stoddard solvent;

90% aliphatic hydrocarbon; and

from 1% to 10% silicone blend.

15. The method of claim 3, wherein the releasing agent comprises:

90% aliphatic hydrocarbon; and

10% silicone blend.

16. The method of claim 3, wherein the releasing agent comprises:

1.5% Stoddard solvent;

90% aliphatic hydrocarbon; and

8.5% silicone blend.

17. The method of claim 3, wherein the pre-polymer mixture comprises:

70% polymeric diphenylmethane diisocyanate;

25% 4,4-diphenylmethane diisocyanate; and

5% trischloropropyl phosphate.

18. The method of claim 3, wherein the curative mixture comprises:

74% hydroxl terminated poly (oxyalkylene) polyethers;

17% butanediol;

8.1% diethyltoluenediamine; and

0.9% of organotin catalyst.

19. The method of claim 3, wherein the pre-polymer mixture comprises:

0.5% of toluene diisocyanate;

45% isocyanate terminated prepolymer;

7% diphenylmethane diisocyanate;

2% higher oligomers of MDI;

5% parafinic and naphthenic petroleum blend;

38% chlorinated hydrocarbon; and

2.5% hydrophobic silica.

20. The method of claim 3, wherein the curative mixture comprises:

0.5% of an organomercury catalyst;

15% petroleum hydrocarbon;

43% polyether polyols;

35% calcined kaolin; and

6.5% hydrophobic silica.